

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 - 6 Canceled

- 7. (New) A process for producing a microstructured analytical system comprising:
- providing at least two plastic components, wherein at least one component is microstructured and forms at least one channel;
 - wetting at least one component with an adhesive;
 - aligning the components;
 - pressing and joining the components together when joined surfaces of the components are in a parallel relation; whereby an interior of the at least one channel is not coated with the adhesive after joining the components; and
 - curing the adhesive.
8. (New) A process according to claim 7, wherein the at least one component comprises electrodes.
9. (New) A process according to claim 7, wherein aligning is performed using sputtered optical registration markers.

10. (New) A microstructured analytical system produced by a process according to claim 7.

11. (New) A microstructured analytical system according to claim 10, wherein the system comprises electrodes in free contact with the interior of the channel.

12. (New) A microstructured analytical system according to claim 10, wherein electrodes are coated with a chromium oxide and a noble metal.

13. (New) A process according to claim 7, wherein the adhesive is applied with a thickness of 0.5-10 μm .

14. (New) A process according to claim 7, wherein the system further comprises a detector, a fluidic connection, a reservoir, a reaction chamber, a pump or a control device.

15. (New) A process according to claim 7, wherein the adhesive is applied to an unstructured region of the component.

16. (New) A process according to claim 9, further comprising applying electrodes at generally the same time as the optical registration markers.

17. (New) A process according to claim 7, wherein wetting is by flat rolling, pad printing, spraying, or screen printing.

18. (New) A microstructured analytical system comprising :
at least two plastic components, wherein at least one plastic component comprises at least one electrode, and the at least one electrode comprises a chromium oxide and a noble metal.

19. (New) A system according to claim 18, wherein the electrode comprises a coating of the chromium oxide and a coating of the noble metal.